

REMARKS

The present response is filed with a Request for Continued Examination (RCE) and is responsive to the Office Action mailed in the above-referenced case on December 29, 2004, made Final. Claims 1-35 are presented for examination. The Examiner has maintained the rejection of claims 1-35 under 35 U.S.C. 103(a) as being unpatentable over Simons et al. (US 6,332,198) hereinafter Simons, in view of Zadikian et al. (US 6,724,757) hereinafter Zadikian.

Applicant has again carefully studied and reviewed the rejections, references and the Examiner's statements of the instant Office Action. In response, applicant amends the language of the claims to more particularly point out and distinctly claim the subject matter of applicant's invention, and herein provides further arguments to clearly establish that the claims as amended distinguish unarguably over the references of Simons and Zadikian, either singly or in combination.

Applicant amends the language of the independent claims to specifically recite that all application-dependent data resides locally in kernel software of individual APS modules. Applicant reproduces claim 1 as amended below for convenience.

Claim 1 as amended now recites:

1. (Currently Amended) An automated-protection-switching (APS) software suite for distribution over multiple processors of a distributed processor router comprising:

an APS server module running on a first one of the multiple processors for managing communication and distributing configuration and state information;
and

APS client modules running on second ones of the multiple processors, the APS client modules for monitoring interface state information, reporting to the APS server application, and for negotiating with other APS client modules;

characterized in that all application-dependent data resides locally in kernel software of individual APS modules, and further characterized in that APS interface relocation from a primary interface to a backup interface is performed through direct communication between the APS client modules running on the processors supporting the involved interfaces, and all of the required communication between distributed APS client modules are completed to perform a switchover within a 50 millisecond time window required by APS protocol.

Independent claims 12 and 24 recite the distributed processor router and method in accordance with the limitations of claim 1. Applicant accordingly amends the language of those claims in accordance with the limitations of claim 1 as amended.

In the previous response filed September 03, 2004 as Response C, applicant reasserted the argument that a 50-millisecond switchover simply is not possible in the art of Simons even when Standard APS protocol is known in the art, because all application dependant information and communication needed to facilitate APS is not stored locally, that is, in kernel software residing in individual APS modules. In applicant's invention, in addition to required software intelligence, all such data resides in, and is transmitted directly between APS modules making the information exchange required for APS occur much faster, enabling consistent 50-millisecond switchover.

In the Examiner's remarks in the instant Office Action, the Examiner has stated that Simons discloses allowing multiple redundancy schemes in a single network device, thus software intelligence is stored locally. However, the Examiner did not address the fact that, although software intelligence may be stored locally in Simons, the application-dependant data clearly is not.

The Examiner retains the art of Zadikian to teach a 50 millisecond switchover, stating in the Response to Arguments section of the instant office action that Zadikian teaches a network element capable of performing routing functions that support simple provisioning and fast restoration (50ms). However, what Zadikian actually discloses is that the scheme referred to as “1-plus-1 allows the line cards to select between the two copies of the group matrix without CPU intervention, which helps ensure (not consistently achieves or supports) 50-millisecond switchover. Further, applicant reasserts that since Zadikian's system teaches routing signals on optical cables, an analogous system to applicant's invention is certainly not taught. Still further, Zadikian facilitates switchover from a main processor, and neither of the software intelligence or application dependant data is stored locally, that is in individual APS modules, as is taught in applicant's invention. Therefore, applicant strongly believes that the fact that Zadikian's scheme helps ensure (not consistently achieves or supports) 50-millisecond switchover does not teach or suggest consistent 50ms switchover, a required reasonable expectation of success has not been demonstrated, and the teaching therefore does not deserve patentable weight in combination with Simons. Combining a method (Zadikian) that suggests helping to ensure 50ms switchover, with a method not capable of 50ms switchover (Simons), does not and cannot produce a method that does consistently achieve 50ms switchover or better, as in applicant's invention and claim language.


Applicant therefore believes that claims-1, 12 and 24 as amended and argued by applicant are now clearly and unarguably patentable over the art of Simon and Zadikian, either singly or combined. Claims 2-11, 13-23, and 25-35 are then patentable on their own merits, or at least as depended from a patentable claim.

As all of the claims as amended and argued are clearly shown to be patentable over the prior art, applicant respectfully requests that the rejections be withdrawn and that the case be passed quickly to issue. If any fees are due beyond fees paid with this response, authorization is made to deduct those fees

from deposit account 50-0534. If any time extension is needed beyond any extension requested with this amendment, such extension is hereby requested.

Respectfully Submitted,

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